

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): An image sensing apparatus comprising:

an image sensing device which generates an image sensing signal by photoelectrically converting light from an object;

a weighting device which weights a signal component corresponding to a focus detection area ~~in a frame~~ sensed by said image sensing device; and

an evaluation value acquiring device which acquires a piece or pieces of information required to control a focusing lens from an output from said weighting device,

wherein said weighting device changes a level of weighting in a second area which is outside of a first area which is placed substantially at a center of the focus detection area, and

wherein the level of weighting in the second area is changed so as to gradually approach to a weighting level of the first area through plural steps.

Claim 2 (Previously Presented): The apparatus according to claim 1, wherein said weighting device changes the level of weighting so that the level of weighting increases from a peripheral portion to a central portion of the focus detection area.

Claim 3 (Previously Presented): The apparatus according to claim 2, wherein said weighting device independently sets the level of weighting in horizontal and vertical directions of the frame.

Claim 4 (Previously Presented): The apparatus according to claim 1, wherein the focus detection area comprises a plurality of focus detection areas, and said weighting device performs relative weighting between the adjacent focus detection areas.

Claim 5 (Previously Presented) An autofocus method comprising:

- an image sensing step of generating an image sensing signal by photoelectrically converting light from an object;
- a weighting step of weighting a signal component corresponding to a focus detection area in a frame sensed in the image sensing step; and
- an evaluation value acquiring step of acquiring a piece or pieces of information required to control a focusing lens from an output in the weighting step,

wherein in the weighting step, a level of weighting is changed in a second area which is outside of a first area which is placed substantially at a center of the focus detection area.

Claim 6 (Previously Presented): The method according to claim 5, wherein in the weighting step, the level of weighting is changed so that the level of weighting increases from a peripheral portion to a central portion of the focus detection area.

Claim 7 (Previously Presented): The method according to claim 6, wherein in the weighting step, the level of weighting is independently set in horizontal and vertical directions of the frame.

Claim 8 (Previously Presented): The method according to claim 5, wherein the focus detection area comprises a plurality of focus detection areas, and in the weighting step, relative weighting is performed between the adjacent focus detection areas.

Claim 9 (Previously Presented): A program characterized by causing a computer to execute an autofocus method defined in claim 5.

Claim 10 (Previously Presented): A storage medium characterized by computer-readably storing a program defined in claim 9.

Claim 11 (Canceled).

Claim 12 (Currently Amended): An image sensing apparatus comprising:
an image sensing device which generates an image sensing signal by photoelectrically converting light from an object;
a weighting device which weights a signal component corresponding to a focus detection area ~~in a frame~~ sensed by said image sensing device;
an evaluation value acquiring device which acquires a piece or pieces of information required to control a focusing lens from an output from said weighting device; and

~~a driving device which drives the focusing lens to an in-focus point on the basis of a signal extracted by said evaluation value calculation device,~~

wherein said weighting device performs relative weighting processing between adjacent distance measurement frames plural focus detection areas.

Claim 13 (Previously Presented): The apparatus according to claim 1, further comprising a driving device which drives a focusing lens to an in-focus point on the basis of a signal acquired by said evaluation value acquiring device.

Claim 14 (Previously Presented): The method according to claim 5, further comprising a driving step of driving a focusing lens to an in-focus point on the basis of a signal acquired in the evaluation value acquiring step.